

## ABSTRACT

This invention relates to: a method for differentiating osteoclast precursor  
5 cells (preosteoclasts) into osteoclasts, which comprises culturing the  
preosteoclasts in the absence of accessory cells; a method for isolating  
preosteoclasts, which comprises culturing peripheral blood or joint fluid in the  
absence of cytokine for 1 to 3 weeks; an preosteoclasts, which is obtainable by  
the above method; a method for differentiating the preosteoclasts obtained by  
10 the above method into osteoclasts, which comprises culturing the  
preosteoclasts in the absence of accessory cell; an osteoclast, which is  
obtainable by the above method; a method for screening agents for treating  
metabolic bone diseases, which comprises using the preosteoclasts or the  
osteoclasts as described above; and agents for treating metabolic bone diseases,  
15 which is obtainable by the above screening method.